



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

20NR-04
Job Sheet 171544



001216

Part No: 20NR-04

Job Qty: 4 ea

Part Name: Solenoid



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/2/18

Job Tracking No:

Due Date: 2/16/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG 20NR-04 Rev 6 IPP Rev A 18.02.02 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea		2/15/18	0.00	0.00	Start Up Small Fab-4		MLL
100	Small Fab	4 pcs		2/16/18	0.08	0.40	Small Fab-9		MLL DAS
110	QC	4 pcs		2/16/18	0.00	0.00	QC5		38
130	Packaging	4 pcs		2/16/18	0.00	0.00	Packaging3-2	GA	FEB 28 2018
140	QC21-FG	4 Ea		2/16/18	0.00	0.00	QC21		

Part Op 100 - 1-Assemble as per DWG sheet 1. 2-Center 20NR-03 in shaft of solenoid as per note 1. ***Note 32446 22-16 crimp
Descriptions: connectors supplied loose as per note 2***
130 - Bag and tag

DAS FEB 28 2018
21
9-55

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
20NR-04-1	Solenoid	4 Ea (1 ea)	90-Start up Operation	
20NR-04-3	Spacer	4 Ea (1 ea)	90-Start up Operation	
32446	Crimp Terminal	8 (2 ea)	90-Start up Operation	
92383A695	Slotted Spring Pin	4 Ea (1 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	20NR-04-1	4	0	0
	20NR-04-3	4	0	0
	32446	8	0	0
	92383A695	4	0	0

Part Specifications

Specifications could not be found.



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Container No: S045994



Part: 20NR-04

Job No: 171544

Serial No/Batch: S045994

Revision: 20NR-04

Inspector:

Date: 02/27/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

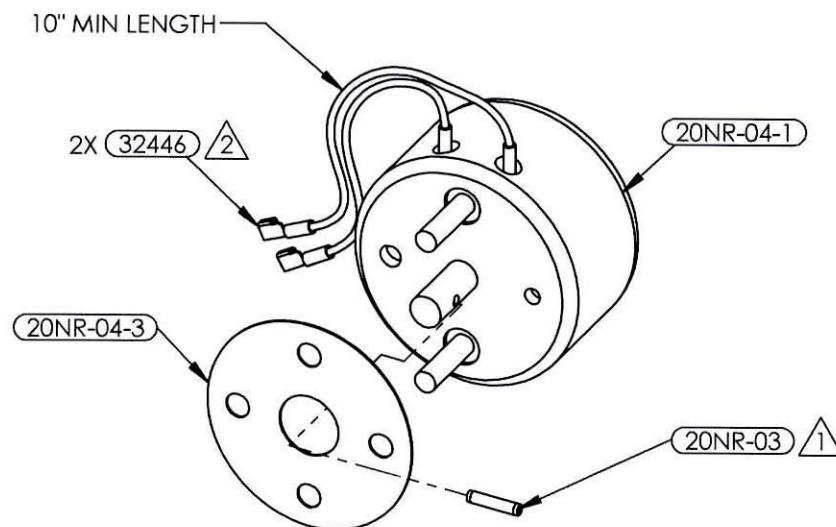
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
5		AS DRAWN BY CANAM.	7/18/2013	CFS	
6	14-0206	CHD TITLEBLOCK WAS RED BARN IS DART. 20NR-04-1 ADDED ENGRAVE BATCH # NOTE. ADDED 20NR-04-3 SPACER, 2X 32446 CONNECTORS. ADDED MIN LENGTH NOTE.	11/3/2014	DPD	JAG



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 171544 MJS

1802-02

NOTE:

- ① CENTER 20NR-03 IN SHAFT OF SOLENOID.
② CONNECTORS SUPPLIED LOOSE.

USED ON
20NR
8NR

DART AEROSPACE	
TITLE SOLENOID ASSEMBLY	
DWG NO. 20NR-04	REV 6
MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	DRAWN BY: CANAM APPROVED <i>D Weil</i> HEAT TREAT FINISH SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
SCALE 1:2	DATE 12/1/1998
SHEET 1 OF 3	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
		B/O	20NR-03	1	SOLENOID PIN	S.S.	Ø1/8 X 5/8 MCMMASTER-CARR #92383A695	1
		B/O	20NR-04-1	1	SOLENOID		H-1127-020 (MODIFIED)	2
			20NR-04-3	1	SPACER	PETG	Ø2-5/8 X .020	3
		B/O	32446	2	22-16 AWG KNIFE CONNECTOR		ALLIED ELECTRONICS 32446	1